

Appl. No.: 10/501,014  
Amdt. dated January 16, 2009  
Reply of Office action of October 2, 2008

Docket No. CL-10388

### **REMARKS**

Claims 1 and 3-10 are currently pending in the application. Applicant has amended claims 4 and 7. Applicant requests reconsideration of the application in light of the following remarks.

#### **Rejections under 35 U.S.C. §102**

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Claims 4-6 were rejected under 35 U.S.C. § 102(b) as being anticipated by Kim (EP 0860407, hereinafter "Kim"). Applicants respectfully traverse this rejection and request reconsideration of the claims.

Kim teaches a fermenting and drying apparatus. The apparatus taught by Kim includes a garbage tank that is connected to different pipes that are utilized to ferment and dry the garbage. The fermentation may be accelerated by introducing ferment funguses. The fermented food garbage is then dried to reduce size.

Claim 4 has been amended to include, "a fermentation tank which includes an agitator capable of cutting an inputted organic waste; actinomyces bovis microorganism bacteria, wherein the fermentation tank is adapted to decomposes the organic wastes using the actinomyces bovis microorganism bacteria and discharges a carbonic acid gas including water." Kim does not teach the use of bacteria for fermenting purposes, and further does not

teach the use of actinomyces bovis microorganism bacteria for use in the fermenting phase, as required by claim 4. In fact, Kim teaches the use of fungus. Fungus and bacteria are different living organisms that live and function in different ways and are not the same.

Further, the International Preliminary Examination Report of Applicant's PCT Application No. PCT/KR03/00035 (hereinafter, "PCT Application"), attached as Appendix A, indicates that the Authorized Officer found claims 4-6, prior to this current amendment, novel and not anticipated by Kim. Even without the current amendments, the Authorized Officer stated, "The solid-liquid separator which is an element of claim 4 is not disclosed in [Kim] and [Ginyama]. Therefore, Claim 4 has novelty, and claims 5-6, dependent of claim 4, also have novelty." Applicant wishes to point out the inconsistent findings of the International Search Authority and Examiner with regard to the same reference and the same claims. Accordingly, since another examiner in a different receiving office found claim 4 to be novel without the current amendment, claim 4 with the current amendment is also novel and is therefore be allowable.

Accordingly, Kim does not teach the use of actinomyces bovis microorganism bacteria, nor does it teach the solid-liquid separator. At least for these reasons, claim 4 is not taught by Kim and Applicant respectfully requests that the anticipation rejection of claim 4 be withdrawn.

The above arguments regarding claim 4 apply with equal force to claims 5 and 6, which depend from claim 4. Thus, claims 4-6 are not anticipated by Kim and should therefore be found to be allowable.

Applicant respectfully requests that the anticipation rejections of claims 4-6 be withdrawn.

**Rejections under 35 U.S.C. §103**

To establish a *prima facie* case of obviousness under 35 U.S.C. §103, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the cited prior art reference must teach or suggest all of the claim limitations. Furthermore, the suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based upon the Applicants' disclosure. A failure to meet any one of these criteria is a failure to establish a *prima facie* case of obviousness. MPEP §2143.

**Claims**

Claims 1 and 3 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim (EP 0860407, hereinafter "Kim"), in view of Ginyama et al. (JP 2000233166, hereinafter "Ginyama"). Applicants respectfully traverse this rejection and request reconsideration of the claims.

Kim teaches a fermenting and drying apparatus. The apparatus taught by Kim includes a garbage tank that is connected to different pipes that are utilized to ferment and dry the garbage. The fermentation may be accelerated by introducing ferment funguses. The fermented food garbage is then dried to reduce size.

Ginyama also teaches an apparatus for fermenting garbage and the use of two fermentation tanks to accomplish the process.

Claim 1 includes a limitation of, “wherein each arm blade includes a plurality of inner arm blades which each has an inner arm plate having an end portion engaged to the shaft, and an inner end plate engaged to the other end portion of the inner arm plate and including a center portion bent, and which are installed at a regular interval with respect to an axial direction of the shaft; and an outer arm blade which includes an outer arm plate having an end engaged to the shaft, an outer end plate engaged to the other end portion of the outer arm plate and having a center portion bent, and a sub-plate engaged to an upper portion of the outer arm plate at a certain slanted angle and which is installed at both ends of the shaft;”

The Examiner indicates that Kim teaches this arm blade. Kim however, as seen in Fig. 5(c), includes an agitator with plates 44 and 44c that are used to crush the solid stuff in the food garbage. Kim does not teach inner arm blades having an inner arm plate including a center portion bent. Further, Kim does not teach an outer arm blade which includes an outer arm plate having a center portion bent, and a sub-plate engaged to an upper portion of the outer arm plate at a certain slanted angle. Ginyama teaches stirring blades, but not with the structure as claimed in claim 1. Accordingly, neither Kim nor Ginyama teach all elements of the inner blades and outer blades. At least for this reason, claim 1 is not obvious over Kim in view of Ginyama and Applicant respectfully requests that the obviousness rejection of claim 1 be withdrawn.

Additionally, Applicant cannot find in Kim or Ginyama the limitations of claim 1 that include, “wherein each arm blade includes a plurality of inner arm blades which each has an inner arm plate having an end portion engaged to the shaft, and an inner end plate engaged to the other end portion of the inner arm plate and including a center portion bent, and which are installed at a regular interval with respect to an axial direction of the shaft; and an outer arm blade which includes an outer arm plate having an end engaged to the shaft, an outer end plate engaged to the other end portion of the outer arm plate and having a center portion

bent, and a sub-plate engaged to an upper portion of the outer arm plate at a certain slanted angle and which is installed at both ends of the shaft.” Applicant requests that the Examiner provide an indication where these elements are disclosed by Kim and/or Ginyama.

The above arguments regarding claim 1 apply with equal force to claim 3, which depends from claim 1. Thus, claim 3 is not anticipated by Kim and should therefore be found to be allowable.

Applicant respectfully requests that the obviousness rejections of claims 1 and 3 be withdrawn.

Claims 7-10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Christensen (U.S. Patent No. 2,225,428, hereinafter “Christensen”) in view of Kim (EP 0860407, hereinafter “Kim”). Applicant respectfully traverses this rejection and request reconsideration of the claims.

Christensen discloses an apparatus that is used for the recovery of unfermentable residues of alcoholic drinks. The apparatus includes a screen for separating the fermented liquid and the solid particles. The solid particles form part the unfermentable residue and the residue undergoes several other process steps by use of the apparatus.

Claim 7 as amended includes, “a twist screen having a multi-step screen and a vibrator motor which is adapted to filter a remaining substance supplied from the hopper using a vibration generated by the vibrator motor and separates the same into a recyclable substance and a non-recyclable substance and discharge the same; an eject hopper which is adapted to store a recyclable substance separated and discharged from the twist screen.” Christensen teaches a screen that has two screen portions and a vibrator for improving the screening efficiency. Christensen does not disclose a multi-step screen, but rather only discloses a screen with two offset sections.

Further, Christensen does not teach an eject hopper. An eject hopper as defined in Applicant's specification as a unit capable of temporarily storing a recyclable substance separated and discharged from the twist screen. The tank of Christensen stores un-recyclable material. Additionally, claim 7 requires, "a cyclone which is connected with the eject hopper by a pressure line and is adapted to re-supply a recyclable substance supplied from the eject hopper to a fermentation tank of an organic waste decomposition device and to return a part of the same to the hopper." The Examiner indicated that it would have been obvious to modify the Christensen system with a fermentation tank of organic waste decomposition device of Kim. Applicant disagrees with this reasoning and believes that it is not obvious to modify Christensen to use with a fermentation tank. Christensen indicates that the solid particles go through the process and apparatus as the unfermentable residue. Claim 7 requires that the recyclable material go through the eject hopper, through the cyclone and into the fermentation tank. Christensen teaches a system that is the opposite of this. Christensen's system removes unfermentable residue and does not put the residue back in the fermentation process, but rather prepares the unfermentable residue for other uses such as feed for animals, and the unfermentable residue is not to be put back into the fermentation tank. Accordingly, there would be no likelihood of success and further, no motivation to modify Christensen in view of Kim.

For at least these reasons, claim 7 is not obvious over Christensen in view of Kim and Applicant respectfully requests the obviousness rejection of claim 7 be withdrawn.

The above arguments regarding claim 7 apply with equal force to claims 8-10, which depend from claim 7. Thus, claims 8-10 are not obvious over Christensen in view of Kim and should therefore be found to be allowable.

Applicant respectfully requests that the obviousness rejections of claims 7-10 be withdrawn.

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**Regarding Doctrine of Equivalents**

Applicant hereby declares that any amendments herein that are not specifically made for the purpose of patentability are made for other purposes, such as clarification, and that no such changes shall be construed as limiting the scope of the claims or the application of the Doctrine of Equivalents.

**CONCLUSION**

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

It is requested that a one-month extension of time be granted for the filing of this response, and the appropriate extension filing fee of \$65 is enclosed herewith.

If any fees, including extension of time fees or additional claims fees, are due as a result of this response, please charge Deposit Account No. 19-0513. This authorization is intended to act as a constructive petition for an extension of time, should an extension of time be needed as a result of this response. The examiner is invited to telephone the undersigned if this would in any way advance the prosecution of this case.

Respectfully submitted,

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## Appendix